

**To:** Christner, Jan[Jan.Christner@WestonSolutions.com]  
**From:** OBrien, Wendy  
**Sent:** Tue 8/11/2015 12:37:30 PM  
**Subject:** RE: Animas response

Absolutely yes.

Wendy O'Brien, DVM, PhD, DABT

Toxicologist, Ecosystems Protection and Remediation

USEPA Region 8

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**From:** Christner, Jan [mailto:Jan.Christner@WestonSolutions.com]  
**Sent:** Tuesday, August 11, 2015 6:37 AM  
**To:** OBrien, Wendy  
**Subject:** RE: Animas response

I will have questions, so I hope it's OK if I just send e-mails as they come up.

1. I like to propose doing statistics only for the metals that were measured most frequently as they were measured so often because they are metals of interest at the site. The statistics are less meaningful if we only have a few sample results, and some of the analytes were only measured 1 to 3 times. The metals with the most measurements are aluminum, cadmium, copper, iron, lead, manganese, and zinc.

2. I plan to start with A72 data, the Animas River downstream of Cement Creek. While it may make sense to do ratios of water quality between A72 and A68 with the new data, you'll

likely want to compare river results to A72. The Cement Creek data is probably less a concern at this point, but I'll do that second if I need to prioritize.

Let me know if this works.

Jan

**From:** OBrien, Wendy [mailto:OBrien.Wendy@epa.gov]

**Sent:** Tuesday, August 11, 2015 6:14 AM

**To:** Christner, Jan:

**Subject:** RE: Animas response

Here you go:

<http://www.epa.gov/oswer/riskassessment/pdf/background.pdf>

Thank you!!!!

Wendy O'Brien, DVM, PhD, DABT

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]

**Sent:** Monday, August 10, 2015 5:34 PM

**To:** OBrien, Wendy

**Cc:** Wall, Dan

**Subject:** RE: Animas response

Wendy,

Attached are the averages that include the primary sampling events performed by EPA but do not include May or June sampling events or mini-sipper data. These should be indicative of non-runoff river conditions.

Please let me know if you have questions, would like changes, or need additional data.

Jan

Jan Christner

Senior Project Engineer

Weston Solutions, Inc.

1445 Garrison Avenue

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505-269-1925

**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]

**Sent:** Monday, August 10, 2015 4:33 PM

**To:** Christner, Jan

**Subject:** RE: Animas response

No worries. Very much appreciate your help. Thank you!

Wendy O'Brien, DVM, PhD, DABT

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]

**Sent:** Monday, August 10, 2015 3:37 PM

**To:** OBrien, Wendy

**Subject:** FW: Animas response

Wendy,

Sorry about this, but I just talked to Dan Wall and need to delete some of the data I used to create those averages. It should take less than an hour to make the corrections. I'll send an updated table ASAP.

Jan

**From:** Christner, Jan  
**Sent:** Monday, August 10, 2015 2:22 PM  
**To:** 'OBrien, Wendy'  
**Subject:** RE: Animas response

Wendy,

I talked with Steve Auer and he didn't use a lot of the data that is in the Scribe database (such as mini-sipper data and more) for the risk assessment. It didn't make sense to not include June and early July as part of spring runoff in this watershed so I just went ahead and provided the two divisions of data (1. all year and 2. without May 1 to July 15). If you and/or Dan just want me to use only the data used for the risk assessment, I can go back and do that. Let me know if you want anything else changed.

Jan

**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]  
**Sent:** Monday, August 10, 2015 12:19 PM  
**To:** Christner, Jan  
**Subject:** RE: Animas response

Hi Jan,

Dan recommends contacting Steve Auer and using the same cutoff dates that were used in the

risk assessment. Hope this makes sense.

Thanks.

Wendy O'Brien, DVM, PhD, DABT

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**From:** OBrien, Wendy

**Sent:** Monday, August 10, 2015 12:15 PM

**To:** 'Christner, Jan'

**Subject:** RE: Animas response

Ok – will do . thank you!

Wendy O'Brien, DVM, PhD, DABT

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]  
**Sent:** Monday, August 10, 2015 12:13 PM  
**To:** OBrien, Wendy  
**Subject:** RE: Animas response

I'm just about done with the dissolved data – taking it from Excel to Word.

I'll send the 2014 summary data (Runoff vs. lower flow) as soon as I finish the dissolved. It won't take much longer. Just deleting some rows and exporting to Word. See if Dan agrees that May 1 to July 15 is runoff or if I should be using different cutoff dates.

**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]  
**Sent:** Monday, August 10, 2015 12:09 PM  
**To:** Christner, Jan  
**Subject:** RE: Animas response

Thanks Jan. This is helpful. Any chance we can look at just 2014 data by season? Dan has expressed a strong desire to see seasonal data and if we limit it to 2014 data that would make the level of effort and turnaround time more manageable.

Thank you.

Wendy O'Brien, DVM, PhD, DABT

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]

**Sent:** Monday, August 10, 2015 12:01 PM

**To:** OBrien, Wendy

**Subject:** RE: Animas response

Hi, Wendy.

See the attached tables showing the historic Animas River data. Only the data from Scribe is included, so it is mainly EPA and ESAT data. The community has additional data that may not be included given the timeframe here.

I showed the count for each of the analytes because some were only analyzed once or twice and others many times.

I'm sending the total before the dissolved so you can let me know if you like this format.

Jan Christner

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**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]  
**Sent:** Monday, August 10, 2015 10:32 AM  
**To:** Christner, Jan  
**Subject:** RE: Animas response

If possible, all would be preferable. Thx.

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]  
**Sent:** Monday, August 10, 2015 10:27 AM  
**To:** OBrien, Wendy  
**Subject:** RE: Animas response

Do you want the data averages just for the Animas River downstream of Silverton (location

A72)? Also upstream averages (A68)? Cement Creek (CC48)?

**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]  
**Sent:** Monday, August 10, 2015 10:01 AM  
**To:** Christner, Jan  
**Subject:** RE: Animas response

Hi Jan,

Can you give me a call at 303.312.6712 when you get a chance?

Thx.

Wendy O'Brien, DVM, PhD, DABT

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**From:** Christner, Jan [<mailto:Jan.Christner@WestonSolutions.com>]  
**Sent:** Monday, August 10, 2015 9:51 AM  
**To:** OBrien, Wendy  
**Subject:** RE: Animas response

Wendy,

The easiest thing is to take the recent database and use all values. Is that adequate for this purpose since you need the data quickly, or do you need average spring and fall concentrations with each of the last 5 years represented evenly where data is available.

Jan

**From:** OBrien, Wendy [<mailto:OBrien.Wendy@epa.gov>]  
**Sent:** Monday, August 10, 2015 9:19 AM  
**To:** Christner, Jan  
**Cc:** Keteles, Kristen  
**Subject:** Animas response

Hi Jan,

I'm working with Marty and many others here on the Animas response. I understand you were involved in looking at the historical values early in the response. We need to know the average values of historical surface water data for the complete analyte list, both total and dissolved. Can you get us those values ASAP?

Also, can you please share with Kristen the eco values you have been working on for Dan Wall?

Thanks.

Wendy O'Brien, DVM, PhD, DABT

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